

$^{54}\text{Fe}(\text{d},\text{n})$ 1970Ha54,1974Co03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Huo Junde	NDS 109, 787 (2008)	30-Apr-2007

1969Co10: E=10 MeV; enriched self-supporting target; pulsed beam; tof method, 25-meter flight path length; resolution ≤ 1.5 ns; measured $\sigma(\theta)$, DWBA analyses (nonlocality, finite range).

1970Ha54: E=5.8 MeV; enriched (92%) targets; neutron tof spectrometer, NE213 liquid scintillator, 1.2 ns overall time resolution (corresponding to 30-100 keV between 0-6 MeV excitation energies); measured $\sigma(\text{E}(\text{n}),\theta)$.

1974Co03: reanalyzed unbound levels deduced by **1969Co10**.

See also **1968Ok04**, **1970Ni04**, **1973LoZS**, and **1976Lo09**.

All data are from **1970Ha54**, except as noted.

 ^{55}Co Levels

E(level)	J^{π}	L	C^2S'	Comments
0.0	$7/2^-$	3	1.95	
2160 20	$3/2^-$	1	0.94	
2560 20	$3/2^-$	1	0.58	
2700 20				
2940 20	$(1/2,5/2)^-$	1,3	0.023,1.07	
3330 20	$(1/2,5/2)^-$	1,3	0.36,1.55	
3660 20	$1/2^-,3/2^-$	1	0.1	
3720 20				
3870 20				
3980 20		(1)		
4190 20	$1/2^-,3/2^-,5/2^-$	1,3	0.21,0.76	
4290 20				
4390 20				
4500 20				
4580 20				
4650 20				
4750 $^{\pm}$ 20	$3/2^-$	1	0.7	
4940 20				
5050 20				
5110 20				
5170	$1/2^-$	1	0.26	E(level): measured in 1969Co10 .
5190 $^{\pm}$ 20	$1/2^-$	1	0.29	
5380 20				
5480 20				
5560 20		1	0.11	
5640 20				
5670 20				
5743	$5/2^-$	3	1.33	E(level): measured in 1969Co10 .
5760 $^{\pm}$ 20	$5/2^-$	3		
5910 20				
5960 20				
6040 20				
6080 20	$(9/2)^+$	4		
6170 20				
6190 20				
6220 20				
6280 20				
6340 20				
6390 20				
6470 20				
6540 20				

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⁵⁴Fe(d,n) **1970Ha54,1974Co03 (continued)**

⁵⁵Co Levels (continued)

E(level)

6660 20
6740 20
6800 20
6850[‡] 20
6900[‡] 20

[†] Based on $\sigma(E(n),\theta)$ measurements, DWBA analyses and S extractions.

[‡] Probable isobaric analog of ⁵⁵Fe level.